



Submission by Salvos Stores

Inquiry on innovative solutions in Australia's waste management and recycling industries

January 2020

For more information, please contact:

Matt Davis

National Director, Salvos Stores

The Salvation Army, Australia

Address: [REDACTED]
Phone: [REDACTED]
Mobile: [REDACTED]
Email: [REDACTED]

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Statement of Recognition

The Salvation Army acknowledges the Traditional Custodians of the lands and waters throughout Australia. We pay our respect to Elders, past, present and emerging, acknowledging their continuing relationship to this land and the ongoing living cultures of Aboriginal and Torres Strait Islander peoples across Australia.

Introduction and Background

Salvos Stores is Australia's largest charitable recycler, with involvement in reuse through the sale or provision of second-hand items for over 150 years. Proceeds fund social programs through the circulation and sale of used products, last year Salvos Stores raised over \$42 million nationally. Salvos Stores is the market leader in reuse, and a mainstay of the circular economy.

A difficulty facing our national waste and recycling industry is the gross under-appreciation of higher tier preventative waste hierarchy methods, such as avoidance, reuse or repurposing.

Historically, waste management was founded on the minimization of environmental impacts and amenity loss from the displacement of 'end-of-life' materials, principally through the creation of landfills to store waste stockpiles. Over many decades, the industry has evolved with the introduction of newer and more environmentally appropriate responses to waste management, inclusive of the recovery of valuable resources, the active prevention of littering and illegal dumping, and transient state-to-state waste movement.

In more recent years, local and state governments have been moving toward a principled circular economy model of waste and recycling management. This has resulted in a drastic improvement in the understanding and engagement of charitable recyclers as part of a holistic approach to material stewardship.

Salvos Stores, among other charitable recyclers, focus on enabling reuse of material goods through second-hand sales within a local context. Salvos Stores seeks to ensure these material goods are circulated to new consumers based on their needs. This circularity enables the effective recapture of material value within the economy, markedly minimizing waste to landfill, creating more jobs per tonne material, while also generating essential support funding for programs administered by The Salvation Army.

An imperative for the undertaking and outcome of this national inquiry into innovation in the waste and recycling industry is to ensure representation of all tiers of the waste management hierarchy be represented, inclusive of industries enabling reuse nationally.

As industry and national leaders in enabling reuse within communities, Salvos Stores wishes to nominate The National Association of Charitable Recycling Organisations (NACRO) as a common intermediary between the Australian Government, and the wider charitable recycling industry.

Further to this submission are a series of opportunities for the inclusion to a "future state" within the waste and recycling industry, responsive to market gaps and barriers.

Salvos Stores Core Recommendations

Salvos Stores holds four core recommendations to the inquiry into innovation in the waste and recycling industry (the inquiry). These four recommendations are designed to incentivise the highest priority waste interventions as per the waste hierarchy. By prioritising avoidance and reuse above recycling, Australia's material value can be maximised for economic advantage, while reducing unnecessary waste to landfill.

Salvos Stores' Key Recommendations to the Inquiry:

1. To leverage the charitable recycling sector as a critical enabler of the circular economy and of reuse.
2. To initiate a national textiles reuse policy, as a multi-sector collaboration to ensure reuse is prioritised in the emerging circular economy as it delivers higher economic returns than recycling.
3. To conduct national research on material flows for textiles and other household goods, in order to develop an agreed understanding of the current challenges and ensure opportunities are pursued at the highest levels of the waste hierarchy.
4. To encourage the development of recycling technology infrastructure to add value to textiles that cannot be reused or repurposed.

Salvos Stores encourages the Australian Government to engage and consult with the charitable reuse and recycling sector throughout the inquiry process. Salvos Stores suggests an appropriate intermediary could be the peak representative body for the charitable recycling sector, the National Association of Charitable Recycling Organisations (NACRO).

1. National Opportunities in Circular Economy

Salvos Stores diverts close to 90 million items away from landfill each year. Charitable recyclers nationally, divert over 600,000 tonnes of material away from landfill each year. The contribution from charitable recyclers in the capture and recirculation of materials within the economy represents savings for government through the minimisation of landfill waste while generating over \$500 million in revenue for social programs.

A principle of waste management and recycling is the efficiency and effectiveness of resource valuation and use within an economy. Charitable recycling organisations are national leaders of reuse, which is considered the purest form of recycling.

As is increasingly becoming prevalent in state, national and international discourse, the circular economy is responsive to system failures of a linear economy. Linearity is defined as the “take, make, dispose” mentality of material use. The Victorian Government have outlined a new principled approach, which seeks to substantially minimise emphasis on waste disposal, instead seeking to maximise material reuse and recovery (as seen below).

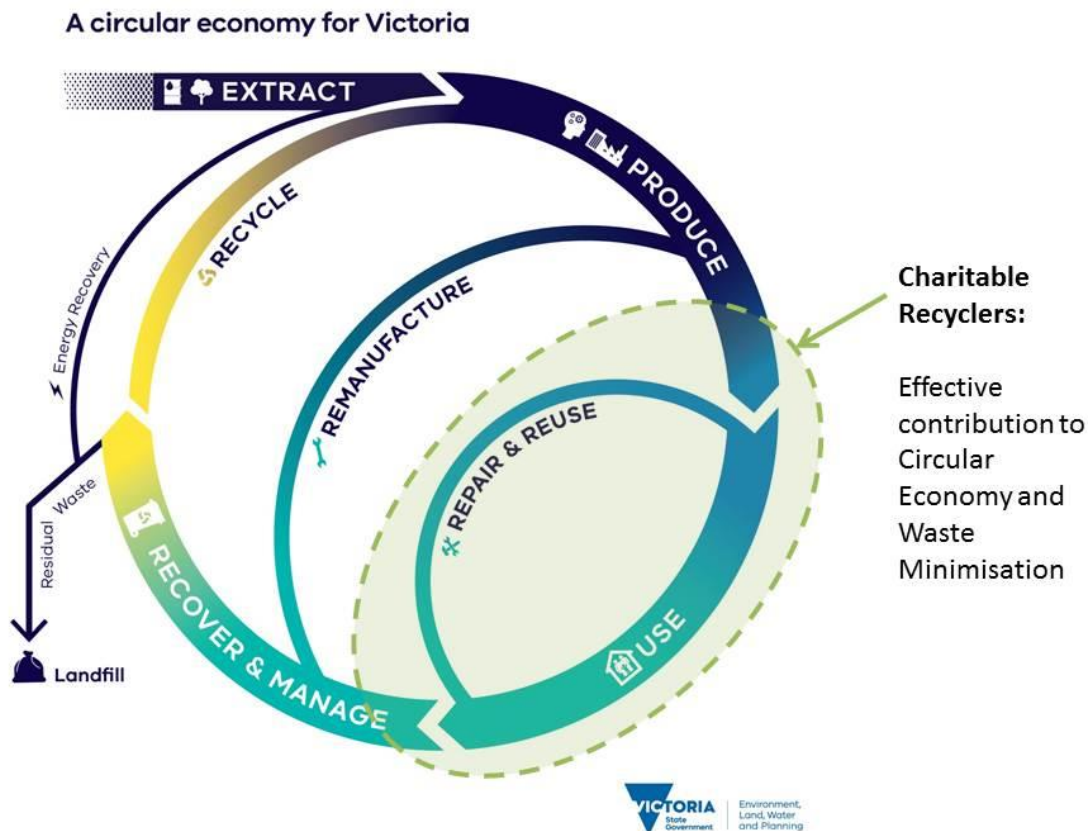


Figure 1: A Circular Economy for Victoria, Victorian Government (Edited by Salvos Stores to highlight the role of charitable recyclers).

The National Association of Charitable Recycling Organisations (NACRO) is a member-based industry representative for charitable recyclers in a governance and policy capacity. Members include The Salvation Army, St Vincent de Paul Society, Australian Red Cross, Save the Children, Lifeline, Anglicare, RSPCA, Uniting Communities, Good Sammy Enterprises, Red Nose Australia, Brotherhood of St Laurence, Family Life, Sacred Heart Mission, Ted Noffs Foundation, Helping Hands, Outlook Victoria, Endeavour Foundations, Diabetes Australia, Epilepsy Foundation, Alinea, Link Vision, and dozens more.

Continued consultation with the charitable recycling industry via NACRO as part of the inquiry and review into innovation into the waste and recycling industry will ensure that reuse will feature as a prominent and desirable methodology to responding to Australia's waste crisis.

A limitation to the expansion of the charitable recycling and reuse sector, is the active understanding and engagement of the Australian consumer base on what and how they can donate their pre-loved goods.

Charitable recyclers are already engaged in new initiatives in this space, including but not limited to:

- Broadening exposure to market-driven consumer initiatives – Moving the Needle is an initiative aiming to reduce the 311,000 tonnes of clothing currently being sent to landfill each year, by inspiring consumers to donate past purchases to charity.
- Innovations in reuse logistics, enabling the transfer of second-hand items from donors to charities and new consumers. Such as the “reverse pop-up” store, where shoppers deposit, rather than purchase clothing.
- Generating greater reach of messaging through supporter organisation platforms, where manufacturers, logistics and retailers can sign up to support the efforts of charitable recyclers.

There exists an opportunity to leverage national platforms, through education and policy, to further enable charitable recycling and reuse.

Expansion of the capabilities and reach of charitable recycling as a sector has the potential to significantly reduce the volume of textile and other household materials ending up in landfill, while driving domestic social and economic outcomes.

2. National Textiles Reuse Policy

Of all material handled through the charitable recycling sector, textiles are one of the most significant and problematic. While Salvos Stores and other charitable recyclers have demonstrated an exceptional capacity for the reclamation and distribution of textile material value through resale, export or rag recycling, there still exist substantive discrepancies in the national response to textile recovery.

According to the National Waste Report 2018, textiles, leather and rubber (excluding tyres) make up 679,000 tonnes of material going into landfill each year, with only 88,000 tonnes being recycled (*Department of the Environment and Energy, 2018*). This represents a 12 per cent resource recovery rate, which is substantially lower than the recovery rate of charitable recyclers (up to 90 per cent of received textile donations).

The Australian Government has the opportunity to leverage the capacity and recovery rates of charitable recyclers toward a more substantial national net resource recovery rate for textiles.

NACRO and Salvos Stores both assert a target resource recovery rate should be established, supported through a national textiles reuse policy. By establishing and focusing efforts toward reuse, strategies developed in the pursuit of this target will prioritise higher tier waste hierarchy interventions.

If for example the Australian Government establishes a target 50 per cent textiles recovery rate, as captured within national waste reporting, this would equate to over 388,000 tonnes of material diverted from landfill.

A successful national textiles reuse policy relies on strong collaboration between Commonwealth, state and territory governments and the non-government sector, including manufacturers, retailers, exporters, logistical providers and charitable recyclers. This policy would serve as a mechanism to ensure reuse is prioritized within an emergent Australian circular economy. Reuse is a preferred waste management intervention, resulting in greater material value recovery, substantially greater job opportunities and through a charitable entity the generation of social outcomes.

The fashion industry is increasingly more accepting of responsibility toward sustainable industry practices. With consumers, brands and retailers all seeking greater environmental accountability for downstream supply chain outcomes, the time is now for government to bring all stakeholders together in this critical multi-sector collaboration.

3. National Materials Flow Research, Textiles and other Consumer Goods

A national textiles recovery target under an established textiles reuse policy will require governmental insight and understanding over national material flows of textiles and other consumer goods.

Salvos Stores supports and recommends NACRO's roadmap toward greater textile recovery rates. This roadmap is framed into three stages, commencing with greater research and insight into material flows for consumer products (especially textiles).

Stages are framed as such;

- **Stage One:** 1-3 years (Research, feasibility, initial trials and actions)
- **Stage Two:** 3-5 years (Successful trials and scaling up)
- **Stage Three:** 5-10 years (Technology and end-market development)

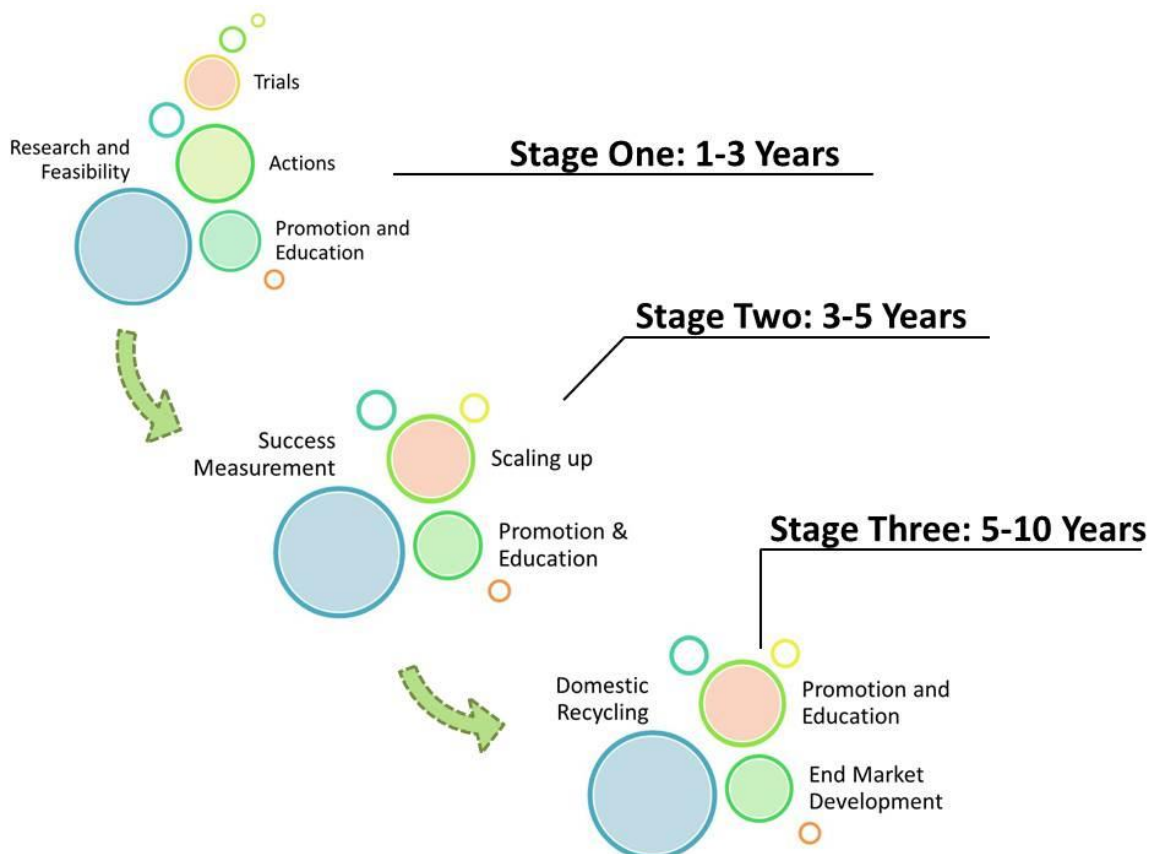


Figure 2: National Textiles Recovery Improvement: Roadmap to 50 per cent recovery rate

Stage One: 1-3 Years (Research, feasibility, initial trials and actions)

It is encouraging to see consumers, brands and retailers all supportive of greater environmental stewardship within the textile and fashion industry. Charitable recyclers are uniquely positioned to support a national textiles recovery target.

It is therefore recommended that the Australian Government commission national research into material flows for textiles and other household goods. Comprehensive data on material flows is essential to reach an agreed understanding of the current challenges facing consumer product avoidance, reuse and recycling, and to establish new opportunities at the highest levels of the waste hierarchy.

A deeper understanding of the challenges and realities of the reuse, repair, repurposing and recycling of consumer goods will lead to a greater insight into existing opportunities for diversion, while uncovering new and divergent technologies in material processing and recovery.

Within this stage of the roadmap, initiatives to reduce textile disposal into landfill can be tested, partnerships with relevant stakeholders can be formed and regulatory barriers can be harmonised to ensure improvement of textile recovery rates across Australia.

Stage Two: 3-5 Years (Successful trials and scaling up)

Stage One establishes targets, policies and initiatives designed to reduce textiles and other consumer goods going into landfill. Stage Two presents the opportunity to review and refine strategies and initiatives prior to a scaling of opportunities.

To meet a national resource recovery target for textiles, the Australian Government will require established and ongoing data measurement and reporting mechanism within biennial National Waste Reporting. Stage One research into material flows for textiles and other household goods provides foundational research to the creation of ongoing textile flow reporting.

Stage Three: 5-10 Years (Technology and End Markets Development)

Domestic textile fibre recovery infrastructure currently does not exist in Australia and therefore is unsupportive of a high national textiles recovery rate.

While initiatives in avoidance and reuse take priority, there is an unavoidable necessity for research and investment into textiles recovery or reprocessing within a domestic market.

A long-term objective to meet a national textiles recovery rate is requisite of domestic textiles recycling. This discussion is further developed under Recommendation 4. Domestic recycling infrastructure development; however it is recommended to establish a long-term supporting policy framework for textiles recovery, supportive of a high national recovery rate for textiles.

4. Domestic recycling infrastructure development

Currently in Australia, textiles recovery is only a small component of all textiles generation. This leads to mass disposal of waste textiles to landfill, where it is a lost value commodity.

Textile “recycling” in Australia consists of the resale of textiles either domestically, to export markets, or to cut the material down for rag or insulation fill. While these are positive outcomes for higher quality textile garments or materials, there is an expanding volume of low-grade textiles, or non-captured textiles which are making their way into landfill.

Disposal of textile waste to landfill leads to adverse environmental outcomes, recognized amongst state and local governments as a common and growing area of concern (*Department of the Environment and Energy, 2018*).

Salvos Stores enable the reuse of tens of millions of clothing garments each year, while enabling the capture of tens of millions more through rag recycling.

There are however textiles that are not suitable for reuse or rag use. This textile material currently has no domestic value, as there is no underpinning domestic processing capacity. There is an opportunity to review options to mitigate this landfill burden, through new on-shore textile reprocessing technologies.

Salvos Stores is already engaged in discussions with industry partners including; textiles manufacturing; retailers; commercial clothing recyclers; second-hand clothing exporters and other charitable recyclers.

Preliminary research into this space has begun, with a growing understanding of the material type composition of the second-hand textiles market. However, a barrier to the expansion of this opportunity is access to funding support for the expansion of research into new textile recycling technologies.

There are international examples to draw insight from, however given the unique geographical challenges facing the Australian market, greater insight is needed to scope investment requirements, ongoing operational and financial performance, capacity output and total market impact, for the remaining 311,000 tonnes of clothing ending up in landfill each year.

Salvos Stores recommends that the Australian Government establish a supporting policy framework, research and investment into technological innovations for clothing and textile fibre recovery.

SOEX Recycling, Germany

SOEX Recycling in Germany “turns unwearable used textiles into high-quality secondary raw materials”. Approximately 11,000 tonnes of material is handled domestically and recovered each year, creating diversion pathways for textiles.

Recovered materials are used as raw material inputs into new products, further enabling the circularity of this material type, while generating new employment and economic opportunities.

Other Global Textile Innovations

International Textile Reuse and Recycling Strategies

- Elander, M. and David Palm (Denmark: Nordic Council of Ministers, 2015), *A Nordic strategy for collection, sorting, reuse and recycling of textiles*, <https://norden.diva-portal.org/smash/get/diva2:788300/FULLTEXT01.pdf>

Textile Recycling Technology

- Hong Kong Research Institute for Textiles Garment-to-Garment Recycle System (China) – a mini-scale garment-to-garment production line that recycles post-consumer garments. <https://www.garment2garment.com/>
- UPSET Textiles (India) – capable of transforming 100 per cent cotton waste into 100 per cent recycled fibres without adding resource-intensive virgin cotton. <https://upsettextiles.com/>
- Lenzing (Austria) – upcycling a substantial proportion of cotton scraps to produce new fibres to make fabrics and garments. <https://www.tencel.com/refibra>, <https://www.lenzing.com/>
- Worn Again Technologies (UK) – pioneering polymer recycling technology that can separate, decontaminate and extract polyester polymers and cellulose from pure and blended cotton and polyester textiles and turn them back into new textile raw materials. <http://wornagain.co.uk/>
- Dutch Circular Textile Valley (the Netherlands) – creating a circular textile chain to reduce environmental impacts. <https://www.dutchcirculartextile.org/>
- Re:newcell (Sweden) – recycling technology dissolves used cotton and other natural fibers into a new, biodegradable raw material, which can be turned into textile fiber. <https://renewcell.com/>
- LSJH in collaboration with Lahti University of Applied Sciences and Spectral Engines (Finland) – waste sorting technology. https://yle.fi/uutiset/osasto/news/new_technology_to_advance_textiles_recycling_in_finland/10973359

- SIPTex (Sweden) – near-infrared (NIR) textile recognition and sorting technology. <http://boergroup-recyclingsolutions.com/projects/siptex-swedish-innovation-platform-for-textile-sorting/>
- Recover (Spain) – turns textile waste into new premium upcycled yarns. <https://www.recovertext.com/>

Innovation in Australia

- NSW Circular Economy Innovation Network – stakeholders from across government, industry, research organisations and communities to find innovative solutions to reduce and reuse waste and materials and enhance sustainability. <https://www.nswcircular.org/>

Conclusion

Salvos Stores holds four core recommendations to the inquiry into innovation in the waste and recycling industry (the inquiry). These four recommendations are designed to incentivise the highest priority waste interventions as per the waste hierarchy. By prioritising avoidance and reuse above recycling, Australia's material value can be maximised for economic advantage, while reducing unnecessary waste to landfill.

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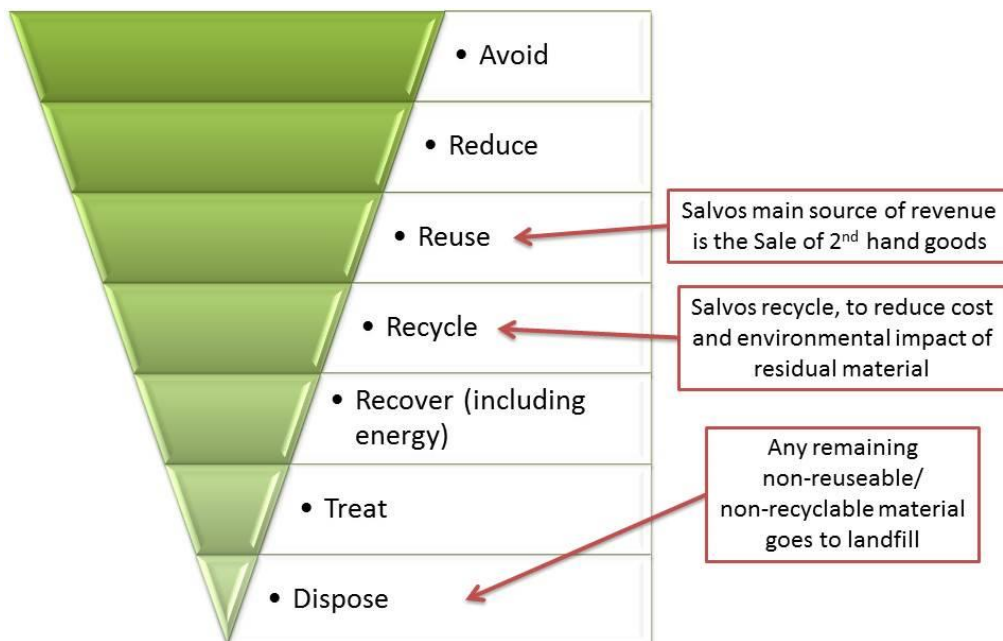
Further Information

The Salvation Army would welcome the opportunity to discuss the content of this submission should any further information be of assistance. Further information can be sought from Matt Davis, National Director, Salvos Stores, at matt.davis@salvationarmy.org.au or on (03) 9210 5100.

Appendix

Appendix 1: Salvos Stores Sustainability Focus

Salvos Stores operational approach has a determined Sustainability Focus. Salvos Stores sees itself as a leading Sustainable Charitable Recycler. The vast majority of our focus is on material flow as collectively our organisation handles close to 40,000 tonnes of material each year nationally.



Avoidance and Reduction

Salvos Stores through its focus on sale of 2nd hand donated goods, avoids first hand purchase or manufacturing waste products. Therefore, Avoidance and Reduction for Salvos Stores focuses on reduction of illegal dumping of waste

While the vast majority of community members donate directly to charity, some deliberately dump waste at charity locations, while other genuine donors sometimes leave items after hours outside of a store. Scavenging, theft and weather damage results in the vast majority of any items left after-hours being stolen or rendered unsalable.

Salvos Stores works diligently to reduce and avoid incidents of donations left after hours and to mitigate illegal dumping of waste with;

- Internal and external communications (i.e. staff training, signage, marketing open hours, etc)
- Extending trading hours (selected stores open longer and/or on public holidays)

- Working closely with Local Councils
- Working with industry bodies and other charitable recyclers on effective solutions
- Engaging with State and Federal Government where possible
- Installation of Infrastructure (fencing/CCTV/sensor lighting/signage/waste cages)
- Undertaking and being involved in extensive research into effective deterrents
- General Education and Public relations campaigns
- Working with Enforcement Agencies where appropriate
- Working with local landowners, neighbours and community members

Reuse

Salvos Stores main source of income is through the sale of 2nd hand goods. All Salvos Stores systems of management (retail, support, operations and logistics) are designed on the basis of selling as much donated material as possible.

While Salvos Stores strives to increase its unit sales, unfortunately a proportion of goods received by Salvos are unsaleable. These items are unsaleable either as dumped waste, or goods damaged by scavenging or weather. Salvos Stores seeks to maximise its reuse, but where reuse isn't an option, recycling plays the next key step in our sustainability focus

Recycling

Salvos Stores recycles close to 30% of all goods received. While our primary goal is to sell goods for reuse, items which are non-reusable but are recyclable are extracted from the material flow for three core purposes;

- Reduction of waste to landfill (CO2-e reduction),
- Reduction of waste disposal cost, and;
- Revenue from the sale of recyclable goods where possible

Materials currently recycled at Salvos Stores include;

- Paper, Cardboard and Paper Products
- Scrap Metal,
- Mattresses,
- Textiles,
- E-waste,
- Mobile phones/batteries, and;
- Printers/toner cartridges.

Salvos Stores is open and actively seeking new ways to recycle more waste products. Barriers to Salvos being able to recycle include size and space constraints of our stores, difficulty and cost of breaking down composite products (i.e. bric-a-brac/furniture), market availability for recycled product (i.e. glass) and the cost ROI on logistics (i.e. plastics).

Appendix 2: About The Salvation Army

The Salvation Army is an international Christian movement with a presence in 128 countries. Operating in Australia since 1880, The Salvation Army is one of the largest providers of social services and programs for people experiencing hardship, injustice and social exclusion.

The Salvation Army Australia has a national operating budget of over \$700 million and provides more than 1,000 social programs and activities through networks of social support services, community centres and churches across the country. Programs include:

- Financial inclusion, including emergency relief.
- Homelessness services.
- Youth services.
- Family and domestic violence services.
- Alcohol, drugs and other addictions.
- Chaplaincy.
- Emergency and disaster response.
- Aged care.
- Employment services.

As a mission driven organisation, The Salvation Army seeks to reduce social disadvantage and create a fair and harmonious society through holistic and person-centred approaches that reflect our mission to share the love of Jesus by:

- Caring for people.
- Creating faith pathways.
- Building healthy communities.
- Working for justice.

We commit ourselves in prayer and practice to this land of Australia and its people, seeking reconciliation, unity and equity.